

## CLAIMS

- 1 1. A method, for use in a user computer system including a pointing device and a  
2 visual display unit, for providing a graphical user interface to a computer program  
3 for displaying search results from a search conducted in a hierarchical data set, the  
4 method comprising:  
5 receiving search results from a search query of a hierarchical data set; and  
6 displaying on a user screen, a graphical representation parent categories for search  
7 results wherein the search results appear within their respective parent categories.
- 1 2. The method of claim 1 further comprising:  
2 selecting a parent category from the display on the user screen; and  
3 displaying on the user screen a graphical representation of the search results in the  
4 selected parent category in the context of the search results respective first  
5 uncommon level of subcategories.
- 1 3. A method of presenting search results, comprising:  
2 receiving search results from a database;  
3 organizing the search results by category; and  
4 graphically displaying a three-dimensional representation the search results within  
5 at least one category icon, the category icon representing a category to which  
6 search results belong, wherein the downward paths to a search result is implied by  
7 graphical positioning of search results within a category icon.
- 1 4. The method of claim 3, further comprising:  
2 representing the search results displayed within the category icon as category

3 member icons.

1 5. The method of claim 4, further comprising:  
2 distinguishing between categories to which the displayed category member icons  
3 by at least one of shape, color and sound, in accordance with a subcategory to  
4 which less than all of the displayed category member icons within a category icon  
5 belong.

1 6. The method of claim 4, further comprising:  
2 selecting a category member icon; and  
3 generating a perceptible excerpt relating to the selected category member icon  
4 comprising at least one of textual, aural, imagery or video data.

1 7. The method of claim 3, further comprising:  
2 representing the search results as a number appearing within the category icon,  
3 the number representing the quantity of data elements from the search results that  
4 fall within the category represented by the category icon.

1 8. The method of claim 3, further comprising:  
2 representing on the user screen, all data elements appearing within the search  
3 results.

1 9. The method of claim 3 further comprising:  
2 A simple API comprising a category path and a URL for each data element in the  
3 search result.

- 1 10. The method of claim 4 further comprising:  
2 displaying explicit downward path information representing the downward path  
3 from the displayed category to a selected data element within the displayed  
4 category.
- 1 11. The method of claim 4, further comprising:  
2 changing the appearance of a category member icon after the category member  
3 icon has been accessed.
- 1 12. The method of claim 4, further comprising:  
2 drilling out to directly access a selected category member.
- 1 13. The method of claim 4, further comprising:  
2 drilling down to display subcategories for a selected category.
- 1 14. The method of claim 8 further comprising:  
2 Zooming in to displayed category member icons;  
3 Enlarging the display space larger than the user display; and  
4 Scanning category member icons across the user screen.
- 1 15. The method of claim 3 wherein the size of the category icons is proportional to  
2 the number of search results within the category.
- 1 16. The method of claim 4, further comprising:  
2 accessing a category icon;  
3 changing the appearance of the viewed icon to indicate at least one of the icon has

4           been access or the icon should be accessed again.

1       17.    The method of claim 4, further comprising:

2           Deriving the numerical relevance rank for a search result data element from  
3           the data element's position within a search results list; and  
4           Displaying the data element's numerical relevance rank within the category  
5           member icon representing the data element.

1       18.    A method of presenting search results, comprising:

2           receiving search results from a database;  
3           organizing the search results by category;  
4           graphically displaying a three-dimensional representation the search results within  
5           at least one category icon, the category icon representing a category to which  
6           search results belong, wherein the downward paths to a search result is implied by  
7           graphical positioning of search results within a category icon;  
8           representing the search results displayed within the category icon as category  
9           member icons; and  
10          distinguishing between categories to which the displayed category member icons  
11          by at least one of shape, color and sound, in accordance with a subcategory to  
12          which less than all of the displayed category member icons within a category icon  
13          belong.

1       19. A method of presenting search results, comprising:

2           receiving search results from a database;  
3           organizing the search results by category;  
4           graphically displaying a three-dimensional representation the search results within

at least one category icon, the category icon representing a category to which search results belong, wherein the downward paths to a search result is implied by graphical positioning of search results within a category icon; representing the search results displayed within the category icon as category member icons; distinguishing between categories to which the displayed category member icons belong by at least one of shape, color and sound, in accordance with a subcategory to which less than all of the displayed category member icons within a category icon belong, wherein the size of the category icons is proportional to the number of search results within the category.

20. A method of requesting the display of search results based on the category paths of the search results, the method comprising:
- under control of a client system, displaying a search request window; and
  - in response to the entry and selection of a search request, sending the search request to a server system;
  - under control of the server system, receiving the request,
  - having the search conducted by a search engine;
  - writing GUI script software capable of generating every potential arrangement of matching web sites in the context of their respective parent category and subcategories; and
  - downloading the GUI script software to the browser software on the client system;
  - under control of the client system, displaying matching web sites in the context of their respective parent categories, and
  - upon the user selecting, with a selection device, a parent category, displaying the

- 16 matching web sites of the selected parent category in the context of their  
17 respective first uncommon level of subcategories.

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